State of Utah

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

Department of
Environmental Quality

Richard W. Sprott
Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

DAQE-IN0113390048-08

August 14, 2008

Colonel Gerald L. Gladney, Commander
Department of the Army
Deseret Chemical Depot
11500 Stark Road, Bldg. 5108
Stockton, Utah 84071-0250

Colonel Gladney:

Re: Intent to Approve: Modify AO DAQE-AN0113390047-08 to Add Boiler and Remove Generators
Tooele County – CDS A; ATT; NSPS; MACT; HAPs; TITLE V
Project Code: N011339-0048

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any questions you may have on this project to Mr. Nando Meli. He may be reached at (801) 536-4052.

Sincerely,

Ty L. Howard, Manager
New Source Review Section

TLH:NM:sa

cc: Tooele County Health Department
Mike Owens

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

INTENT TO APPROVE: Modify AO DAQE-AN0113390047-08 to Add Boiler and Remove Generators

Prepared By: Nando Meli, Engineer
(801) 536-4052
Email: nmeli@utah.gov

INTENT TO APPROVE NUMBER

DAQE-IN0113390048-08

Date: August 14, 2008

Deseret Chemical Depot

Source Contact
Nam Doan
(435) 833-4178

M. Cheryl Heying
Executive Secretary
Utah Air Quality Board

Abstract

The Deseret Chemical Depot has requested their current Approval Order, DAQE-AN013390047-08 dated February 7, 2008, be modified to add a 5.2 MM/Btu boiler to provide pressure and steam for an autoclave unit that will treat secondary waste. The modification will also clarify some language in the Approval Order. The hours of operation for 2-45kW generators will change from 4,000 hours each to a combined total of 8,000 hours per rolling 12-month period. The Metal Parts Furnace and three generators will be removed from the Chemical Agent Munitions Disposal System area.

Deseret Chemical Depot is located in Tooele County at an elevation that is classified as attainment for all criteria pollutants. New Source Performance Standards and Maximum Achievable Control Technology regulations apply to the Deseret Chemical Depot. Title V of the 1990 Clean Air Act applies to this source. The potential to emit emissions, in tons per year, will decrease as follows: PM_{10} = - 1.52, SO_2 = - 2.97, NO_x = - 17.99, CO = - 2.20, and VOC = - 1.39. The changes in tons per year emissions will result in the following potential to emit for DCD: PM_{10} = 27.13, SO_2 = 90.70, NO_x = 209.17, CO = 67.60 and VOC = 9.13.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notice of Intent to Approve will be published in the Tooele Transcript on August 19, 2008. During the public comment period, the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and/or the hearing will be evaluated.

The proposed conditions of the Approval Order may be changed as a result of the comments received. Unless changed, the Approval Order will be based upon the following conditions:

General Conditions:

1. This Approval Order applies to the following company:

   Site Office:

   Department of the Army
   Deseret Chemical Depot
   AMSCM-OPDC-RM
   11500 Stark Rd, Building 5108
   Stockton, Utah 84071

   Phone Number: (435) 833-4178
   Fax Number: (435) 833-4580

The equipment listed in this Approval Order shall be operated at the following location:

Plant Location:

Department of the Army, DCD, AMSCM-OPDC-RM, Stockton, Utah
Tooele County

Take I-80 west from Salt Lake City for 20 miles to Tooele Exit #99; Proceed south on SR36 through Tooele to junction with SR73; turn left and proceed east on 73 for 4 miles to DCD sign turnoff; turn right and proceed southwest 3.2 miles to DCD Identification and Registration Bldg. Buildings with the equipment covered in this AO are: 1800, 1802, 1810, 1850, 1870, 4005, 4301, 4544, 4553, 4554, 5005, 5007, 5010, 5014, 5108, 5109, 5118, 5119, 5120, 5121, 5123, 5126, 5127, 5134, 5135, 5144, 5165, 5166, 5167, 5223, 5451, 5452, 6017, 6059, 7001, and Area 10.

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27

DCD	4,462.0 kilometers Northing, 386.0 kilometers Easting, Zone 12
TOCDF	4,465.3 kilometers Northing, 388.9 kilometers Easting, Zone 12
CAMDS	4,460.5 kilometers Northing, 383.8 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this Approval Order (AO) conform to those used in the UAC R307 and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401.

5. Records of all monitoring data and support information required by this permit shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

6. The Department of The Army and Deseret Chemical Depot (DCD) shall install and operate the 5.2 million British Thermal Unit per hour (MMBTU/hr) boiler, and shall conduct its operations of the DCD equipment, the Tooele Chemical Agent Disposal Facility (TOCDF) and the Chemical Agent Munitions Disposal System (CAMDS) in accordance with the terms and conditions of this AO, which was written pursuant to the Department of the Army, DCD NOI submitted to the Department of Air Quality (DAQ) on June 17, 2008 and additional information submitted to DAQ on July 22, 2008, July 28, 2008, July 29, 2008, August 1, 2008, and August 5, 2008.

7. This AO shall replace the AO DAQE-AN0113390047-08, dated February 7, 2008.

8. The approved installations shall consist of the following equipment or equivalent*:

A. Emergency generators

1) Diesel fired

a) One with a maximum rating of 20 kilowatts (kW)

b) One with a maximum rating of 45 kW

c) One with a maximum rating of 50 kW

d) Three with a maximum rating of 60 kW each

e) One with a maximum rating of 80 kW

f) One with a maximum rating of 135 kW

g) One with a maximum rating of 260 kW

h) Two with a maximum rating of 275 kW each

i) One with a maximum rating of 350 kW

j) One with a maximum rating of 550 kW

k) Two with a maximum rating of 1700 kW each

l) Miscellaneous small diesel fired with combined rating up to 54 kW

2) One natural gas fired with a maximum rating of 250 kW

B. Power generators

1) Two diesel fired, each with a maximum rating of 45 kW

2) One diesel fired portable generator with a maximum rating of 320 kW

3) One natural gas fired with a maximum rating of 240 kW

C. Standby Diesel-Fired ICE

One diesel-fired standby internal combustion engine (ICE) rated at not more than 600 hp

D. Miscellaneous Equipment**

Natural gas fired heaters and boilers that are each rated less than 5.0 million BTU/hr (MMBTU/hr), portable generators, HVAC unit and LPG flare tower

E. DCD Equipment

1) Four CMA natural gas/oil fired boilers: (natural gas and fuel oil as a backup fuel), two with a heat input 3.1 MMBTU/hr, each, and two with 3.75 MMBTU/hr, each.

2) Air filter system on the Change House (Building #1810)

Maximum airflow	1,300 actual cubic feet per minute (acfm)**

3) Portable Shredder**

4) Paint Booth in Building 4005 with paint arrestor filters

F. TOCDF Equipment

1) Two Area 10 Air filter systems

a) Filter Medium — Pre-filter, high efficiency particulate air (HEPA) filter and activated carbon filter

b) Maximum airflow

Primary	12,400 acfm **
Backup	12,400 acfm **

2) Area 10 Boiler

Unit Description: One natural gas-fired hot water boiler rated at 5.2 MMBtu/hr

3) Liquid Incinerator 1

Unit Description: Liquid injection incinerator (LIC) 1 treats drained liquid agent, spent decontamination solution, and agent contaminated liquids. The LIC pollution abatement system (PAS) includes a quench tower, venturi scrubber, packed bed scrubber, and demister. The LIC PAS filtration system (PFS) consists of pre-filters, HEPA filters, and sulfur-impregnated carbon filters.

4) Liquid Incinerator 2

Unit Description: LIC 2 treats drained liquid agent, spent decontamination solution, and agent contaminated liquids. The LIC PAS includes a quench tower, venturi scrubber, packed bed scrubber, and demister. The LIC 2 PFS consists of pre-filters, HEPA filters, and sulfur-impregnated carbon filters.

5) Metal Parts Furnace

Unit Description: The metal parts furnace (MPF) treats munitions casings, contaminated metal containers, and miscellaneous agent contaminated wastes. The MPF PAS includes a quench tower, venturi scrubber, packed bed scrubber, and demister. The MPF PFS consists of pre-filters, HEPA filters, and sulfur-impregnated carbon filters.

6) Deactivation Furnace System

Unit Description: The deactivation furnace system (DFS) treats explosive components, mines, and explosively contaminated maintenance waste. The DFS PAS includes a cyclone, cyclone carbon filter system, quench tower, venturi scrubber, packed bed scrubber, and demister.

7) LIC/MPF/DFS

Unit Description: This group includes the liquid incinerators, deactivation furnace system, metal parts furnace and common stack.

8) Gas-Fired Hot Water Boilers

Unit Description: Two propane- or natural gas-fired hot water boilers rated at 17.0 MMBTU/hr each. Subject to 40 CFR 60 Subpart Dc.

9) Chemical Assessment Laboratory

Unit Description: Work with hazardous chemical vapors and agents is conducted in the Chemical Assessment Laboratory (CAL). Emissions are controlled by a dual bed carbon adsorption unit rated at 22,000 acfm with a max bed velocity of 10 feet per second.

10) Munitions Demilitarization Building

Unit Description: Munitions are prepared for treatment in the munitions demilitarization building (MDB). MDB air is exhausted to a media particulate filter bank, a HEPA filter bank, six activated carbon filter banks, a second HEPA filter bank, and a stack in series.

11) Treaty Compliance Building

Unit Description: The Treaty Compliance Building (TCB).**

12) Personnel Maintenance Building

Unit Description: The Personnel Maintenance Building (PMB) has a filter system associated with the medical clinic. The filter system is intended to supply positive pressure clean air to the medical clinic in the event there is agent contamination of the ambient air.

13) MPF Support Laboratory

Unit Description: The MPF Support Laboratory is located in the Process Utilities Building (PUB), performs the preparation and analysis of the MPF exhaust gas samples per the requirements of 40 CFR 75 Appendix K. Agent analyses are not performed or allowed in this laboratory.

14) Maintenance Ventilation Hood

The Maintenance Ventilation Hood, which is located in Building S-4, is used to remove fumes evolving from equipment that is painted exclusively by brush. The spraying of paint is not performed or allowed in this ventilation hood.

15) Residue Handling Area

Unit Description: Residues are collected in bins and moved to the residue handling area (RHA). The residues handled in RHA include, but are not limited to DFS ash. Emissions from the RHA are controlled by a baghouse.

16) MPF Cool down Conveyor

Unit Description: Treated containers, trays, drained munitions, and residues from miscellaneous decontaminated wastes are cooled in the MPF cool down conveyor. The conveyor is located in the MPF fugitive emission enclosure. Emissions from the cool down conveyor area will be routed and vented out of a maximum of three exhaust ducts (A11, A76 & A77). Each exhaust duct will have a 6,000 cfm fan and filter with a Minimum Efficiency Reporting Value (MERV) rating of 12.

17) Filter Testing Equipment

Unit Description: Filter testing equipment using R-11 or substitute material with a lower ozone depleting potential

18) Fuel Storage Facilities

Unit Description: Four uncontrolled diesel tanks with storage capacities of approximately 300, 500, 500, and 4000 gallons. One 53,000 gallon pressurized storage vessel for liquid petroleum gas.

19) Raw Material and Process Tanks

Unit Description: Various non-volatile organic liquid tanks including three 80,000 gal 18% sodium hydroxide solution tanks, one 15,000 gal 12% sodium hypochlorite solution tank, and four 40,000 gal scrubber brine tanks. Other process tanks at < 5,000 gallons each.

G. CAMDS Equipment

1) Seven diesel fired emergency generators rated at 65, 125, 300, 300, 750, 750 and 750 kW

2) Hot Water Pressure Washer. One diesel-fired boiler rated at 0.35 MMBTU/hr and one 16 Hp gasoline fired pump engine

*Equivalency shall be determined by the Executive Secretary.
**These equipment specification are listed for informational/identification purposes only.

9. DCD shall notify the Executive Secretary in writing when the installation of the boiler listed in Condition #8.F.2 has been completed and is operational. DCD shall also notify the Executive Secretary in writing when the installation of the equipment approved under AO DAQE-AN0113390047-08 has been installed, which included the generators listed in Condition #8.A.2 and #8.B.2, and the sulfur-impregnated carbon filters in Condition #8.F.3, #8.F.4 and #8.F.5, have been completed and are operational. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If installation has not been completed within 18 months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the installation. At that time, the Executive Secretary shall require documentation of the continuous installation of the operation and may revoke the AO in accordance with R307-401-11.

10. Conditions on Emergency Generators in Condition #8.A and #8.G.1.

A. The affected emission units shall be used for electricity producing only during the periods when electric power from the utilities is interrupted or during maintenance. Hours of operation for each affected emissions unit shall be no greater than 500 hours/ rolling 12 month period.

Monitoring:

Hours of operation for each affected emission unit shall be determined by an hour meter and/or a log.

Recordkeeping:

For each affected emission unit, DCD shall record the following information for each usage: date(s), total hours used, and reason for usage. DCD shall record the total hours used each month by the 15th day of the following month.

B. Visible emissions shall be no greater than 10% for the natural gas fired generators.

Monitoring:

Records required for this condition will serve as monitoring.

Recordkeeping:

In lieu of monitoring via visible emission observations, DCD shall keep one of the following sets of records for each affected emission unit, as applicable:

1) Documentation that the emission unit can only burn natural gas and/or liquefied petroleum gas;

2) Documentation that the fuels other than natural gas and/or liquefied petroleum gas cannot be supplied to the emission unit without modification of the fuel supply system; or

3) Fuel bills or fuel meter readings that demonstrate only natural gas and/or liquefied petroleum gas are combusted in the emission unit.

DCD shall keep a log which includes the location and description of each affected emission unit. For each affected emission unit the log shall include the type of records that will be used in lieu of monitoring via visible emission observations. If fuel bills or fuel meter readings will be used in lieu of monitoring via visible emission observations, DCD shall review fuel bills or fuel meter readings once per quarter and record in the log the types of fuel combusted. DCD shall update the records and log required by this condition by the 15th day of the following month.

C. Visible emissions shall be no greater than 20% opacity for the diesel fired generators except for operation not exceeding three minutes in any hour.

Monitoring:

If an affected emission unit is operated during a calendar year, an opacity observation of the emission unit shall be performed in the calendar year that the emission unit was operated. The opacity observation can be conducted at anytime during the calendar year. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity

determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

Recordkeeping:

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained.

11. Conditions on Non-Emergency Generators in Condition #8.B

A. Hours of operation shall be no greater than a combined total of 8,000 hours/rolling 12 month period for the generators in Condition #8.B.1 and 650 hours for the generator listed in Condition #8.B.2.

Monitoring:

Hours of operation for each affected emission unit shall be determined by an hour meter and/or a log.

Recordkeeping:

For each affected unit, DCD shall record the total hours used each month by the 15th day of the following month.

B. Visible emissions shall be no greater than 10% for the natural gas fired generators.

Monitoring:

Records required for this condition will serve as monitoring.

Recordkeeping:

In lieu of monitoring via visible emission observations, DCD shall keep one of the following sets of records for each affected emission unit, as applicable:

1) Documentation that the emission unit can only burn natural gas and/or liquefied petroleum gas;

2) Documentation that the fuels other than natural gas and/or liquefied petroleum gas cannot be supplied to the emission unit without modification of the fuel supply system; or

3) Fuel bills or fuel meter readings that demonstrate only natural gas and/or liquefied petroleum gas are combusted in the emission unit.

DCD shall keep a log which includes the location and description of each affected emission unit. For each affected emission unit the log shall include the type of records that will be used in lieu of monitoring via visible emission observations. If fuel bills or fuel meter readings will be used in lieu of monitoring via visible emission observations, DCD shall review fuel bills or fuel meter readings once per quarter and record in the log the types of fuel combusted. DCD shall update the records and log required by this condition by the 15th day of the following month.

C. Visible emissions shall be no greater than 20% opacity for the diesel fired generators except for operation not exceeding three minutes in any hour.

Monitoring:

If an affected emission unit is operated during a calendar year, an opacity observation of the emission unit shall be performed in the calendar year that the emission unit was operated. The opacity observation can be conducted at anytime during the calendar year. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

Recordkeeping:

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained.

12. Conditions on Standby ICE in Condition #8.C.

A. Hours of operation shall be no greater than 500 hours per rolling 12-month period.

B. Visible emissions shall be no greater than 20% opacity except for operation not exceeding three minutes in any hour.

Fuels

13. Natural gas shall be used as a fuel in the generators listed in the Condition # 8.A.2 and #8.B.3, and the boilers/heaters listed in Condition #8.E.1 and #8.F.2. Fuel oil or diesel may be used as a backup fuel (during natural gas curtailment) in the boilers/heaters listed in Condition #8.E.1 and #8.F.2. Fuel oil or diesel shall be used in the generators listed in Condition #8.A.1, Condition #8.B.1 and Condition #8.B.2, and the ICE in Condition #8.C. Certification of fuel oil or diesel shall be either by DCD's own testing or test reports from the fuel marketer. DCD shall burn #2 diesel/fuel oil or better in all equipment permitted for diesel/fuel oil combustion.

Federal Limitations and Requirements

14. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18 (General Provisions), and Subpart Dc, 40 CFR 60.40c to 60.48c (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) apply to this installation.

15. In addition to the requirements of this AO, all applicable provisions of 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Source Categories Subpart A, 40 CFR 63.1 to 63.16 (General Provisions), Subpart EEE, 40 CFR 63.00 to 63.1214 (Standards for Hazardous Air Pollutants from Hazardous Waste Combustors) and Subpart ZZZZ, 40 CFR 63.6580 to 63.6675 (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) apply to this installation.

Records & Miscellaneous Requirements

16. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

17. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.

18. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

DCD Requirements

Limitations and Test Procedures

19. Visible emissions from the following emission points shall not exceed the following values:

    A. All equipment when fired on natural gas - 10% opacity

    Monitoring:

    Records required for this condition will serve as monitoring.

Recordkeeping:

In lieu of monitoring via visible emission observations, DCD shall keep one of the following sets of records for each affected emission unit, as applicable:

1) Documentation that the emission unit can only burn natural gas and/or liquefied petroleum gas;

2) Documentation that the fuels other than natural gas and/or liquefied petroleum gas cannot be supplied to the emission unit without modification of the fuel supply system; or

3) Fuel bills or fuel meter readings that demonstrate only natural gas and/or liquefied petroleum gas are combusted in the emission unit.

DCD shall keep a log which includes the location and description of each affected emission unit. For each affected emission unit the log shall include the type of records that will be used in lieu of monitoring via visible emission observations. If fuel bills or fuel meter readings will be used in lieu of monitoring via visible emission observations, DCD shall review fuel bills or fuel meter readings once per quarter and record in the log the types of fuel combusted. DCD shall update the records and log required by this condition by the 15th day of the following month.

B. All equipment when fired on diesel and all other emission points - 20 % opacity.

Monitoring:

If an affected emission unit is operated during a calendar year, an opacity observation of the emission unit shall be performed in the calendar year that the emission unit was operated. The opacity observation can be conducted at anytime during the calendar year. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

Recordkeeping:

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained.

20. The following hours of operation limits shall not be exceeded:

Up to 876 hours of operation for each boiler when using diesel fuel (only as a backup fuel when natural gas is cut off) per rolling 12-month period.

TOCDF Requirements

Limitations and Test Procedures

21. Conditions on LIC1, LIC2, DFS, and MPF

A. Hours of operation for each LIC1, LIC2 and DFS shall be no greater than 6,000 hours per rolling 12 month period while feeding hazardous waste (HW) as defined in 40 CFR 261.3 or R315-2-3.

Hours of operation for the MPF shall be no greater than 8,424 hours per rolling 12 month period while feeding hazardous waste (HW) as defined in 40 CFR 261.3 or R315-2-3.

B. Emissions of PM shall be no greater than:

1) 1.0 lbs/hr and 0.02 grains/dscf corrected to 7% O_2 for LIC1;

2) 1.0 lbs/hr and 0.02 grains/dscf corrected to 7% O_2 for LIC2;

3) 0.75 lbs/hr and 0.02 grains/dscf corrected to 7% O_2 for MPF; and

4) 2.55 lbs/hr and 0.02 grains/dscf corrected to 7% O_2 for DFS.

C. Emissions of SO_2 shall be no greater than:

1) 9.5 lbs/hr for LIC1;

2) 9.5 lbs/hr for LIC2;

3) 1.0 lbs/hr for MPF; and

4) 1.0 lbs/hr for DFS.

D. Emissions of CO shall be no greater than:

1) 1.52 lbs/hr and 100 ppmdv at 7%O_2 over an HRA for LIC1;

2) 1.52 lbs/hr and 100 ppmdv at 7%O_2 over an HRA for LIC2;

3) 1.45 lbs/hr and 100 ppmdv at 7%O_2 over an HRA for MPF; and

4) 4.84 lbs/hr and 100 ppmdv at 7%O_2 over an HRA for DFS.

HRA – Hourly Rolling Average

E. The maximum emissions of the following chemical agents shall not be exceeded, values are multiplied by 10^{-6} lb/hr [1]:

Unit	GB	VX	Mustard*
LIC1	13	14	1500
LIC2	13	14	1500
MPF	6.6	9.5	1000
DFS	38	38	1700

GB - Sarin
VX - Sulfinated Organophosphorus
*Mustard includes agents H/HD/HT

[1] Compliance shall be evaluated based on each ACAMS reading and not the average of ACAMS readings over an hour. If ACAMS readings are unavailable due to ACAMS malfunction and/or equipment failure, DAAMS analysis may be used to demonstrate compliance with agent emission rates. In the event of an ACAMS alarm, DAAMS analysis may be used to confirm the presence of agent.

F. The minimum operating temperatures for each incinerator (including individual primary and secondary chamber temperatures) shall be those specified in the current Notice of Compliance submitted to the Executive Secretary or in the approved performance test plan applicable to each incinerator as required in 40 CFR 63 Subpart EEE.

G. DCD shall use only natural gas as a primary fuel and propane as a secondary fuel in the affected emission units for preheat and temperature trimming.

H. DCD shall comply with all applicable requirements of 40 CFR 63 Subpart EEE, including but not limited to, the standards for hazardous waste incinerators in 40 CFR 63.1219, operating requirements in 40 CFR 63.1206(c) and PFS requirements in 40 CFR 63.1209(l)(4).

DCD shall also comply with all applicable requirements of 40 CFR 63 Subpart A as given in Table 1 of 40 CFR 63 Subpart EEE.

I. Emissions of NO_x from the common stack shall be no greater than 96.3 tons per rolling 12-month period during any rolling 12-month period that VX is not combusted in one or more affected emission units.

J. Visible emissions shall be no greater than 10% opacity from the common stack.

K. Visible emissions shall be no greater than 5% opacity from the PFS cool-down stack.

22. Conditions on Natural Gas-Fired Hot Water Boilers

A. DCD shall use only natural gas as a primary fuel and propane as a secondary fuel in the affected emission units.

B. In accordance with 40 CFR 60 Subpart Dc, DCD shall keep daily records of the amounts of each fuel combusted each day, for each affected emission unit.

C. DCD shall comply with all applicable requirements of 40 CFR 60 Subpart A.

D. Visible emissions shall be no greater than 10% opacity.

23. Conditions on Chemical Assessment Laboratory

A. Visible emissions shall be no greater than 5% opacity from the affected emission unit's stack.

B. Visible emissions shall be no greater than 5% opacity from any fugitive emission point associated with lab ventilation air handling system or control equipment at the affected emission unit.

The carbon beds in the affected emission unit shall be replaced when any agent is detected between the first and second beds at a concentration greater than 1 Vapor Screening Level (VSL) or 1 Short Term Exposure Limit (STEL). Filter monitoring is performed at the VSL, which is equivalent to the STEL, to detect evidence of filter degradation.

STEL is defined as the maximum concentration to which unprotected chemical workers may be exposed for up to 15 minutes continuously. For GB, the STEL is 1×10^{-4} mg/m^3, four times daily. For VX, the STEL is 4×10^{-6} mg/m^3, four times daily. However, due to the technical capabilities or existing air monitoring technologies, it has been adjusted to 1×10^{-5} mg/m^3, one time daily. For mustard, the STEL is 3×10^{-3} mg/m^3, one time daily.

The used carbon beds shall be disposed in an approved incinerator or another manner approved by the Executive Secretary.

24. Emissions from the ventilation system at the Munitions Demilitarization Building shall not exceed the following rates:

Agent	Emission Limit, lbs/hr [1]
GB	110E-06
VX	110E-06
Mustard*	11000E-06

GB - Sarin
VX - Sulfinated Organophosphorus
*Mustard includes agents H/HD/HT

[1] Compliance shall be evaluated based on each ACAMS reading and not the average of ACAMS readings over an hour. If ACAMS readings are unavailable due to ACAMS malfunction and/or equipment failure, DAAMS analysis may be used to demonstrate compliance with agent emission rates. In the event of an ACAMS alarm, DAAMS analysis may be used to confirm the presence of agent.

25. Visible emissions shall be no greater than 10% opacity from the Residue Handling Area's stack.

26. Visible emissions shall be no greater than 10% opacity from the affected MPF Cool down Conveyor's stack.

27. The carbon beds in the Area 10 air filter system shall be replaced when any agent is detected between the first and second beds at a concentration greater than 1 Vapor Screening Level (VSL) or 1 Short Term Exposure Limit (STEL). Filter monitoring is performed at the VSL, which is equivalent to the STEL, to detect evidence of filter degradation. The carbon replacement is only required for the filter system (i.e., primary or backup) that is confirmed by DAAMS that exceed 1 VSL or 1 STEL.

    STEL is defined as the maximum concentration to which unprotected chemical workers may be exposed to or up to 15 minutes continuously. For GB, the STEL is 1×10^{-4} mg/m^3, four times daily. For VX, the STEL is 4×10^{-6} mg/m^3, four times daily. However, due the technical capabilities or existing air monitoring technologies, it has been adjusted to 1×10^{-5} mg/m^3, one time daily for VX. For mustard, the STEL is 3×10^{-3} mg/m^3, one time daily.

28. If agent is detected at the exhaust stack of the carbon beds in the Area 10 air filter system, then operations shall be immediately stopped or the exhaust from the Area 10 filter system shall be switched to the backup filter immediately.

CAMDS Requirements

Limitations and Test Procedures

29. Conditions on Pressure Washer:

    A. Hours of operation shall be no greater than 320 hours per rolling 12 month period for the affected emission unit.

    B. Visible emissions from the diesel fired boiler shall be no greater than 20% opacity.

    C. Visible emissions from the gasoline fired pump engine shall be in accordance with R307-201-1(3).

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the DAQ. The UAC R307 rules used by DAQ, the NOI guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

http://www.airquality.utah.gov.

The annual emissions estimations below include point source and do not include fugitive emissions, fugitive dust, road dust, tail pipe emissions, grandfathered emissions etc. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential to Emit (PTE) emissions for the DCD, TOCDF and CAMDS equipment covered in this AO are currently calculated at the following values:

	Pollutant	Tons/yr
A.	PM_{10}	27.13
B.	SO_2	90.70
C.	NO_x	209.17
D.	CO	67.60
E.	VOC	9.13
F.	HCl	8.80
G.	Total Agents	0.069*
H.	Metals	0.094
I.	Aldehydes	0.54
J.	P_2O_5	0.40
K.	Hg	0.02

Currently the CAMDS site is being dismantled. After the CAMDS equipment has been removed, the PTE emissions for the DCD, and TOCDF equipment covered in this AO are currently calculated at the following values

	Pollutant	Tons/yr
L.	PM_{10}	24.40
M.	SO_2	82.35
N.	NO_x	190.20
O.	CO	59.89
P.	VOC	8.31
Q.	HCl	8.80
R.	Total Agents	0.069*
S.	Hg	0.020

*Total Agent emissions calculated assuming the two liquid injection incinerators, deactivation furnace, and metals parts furnace emit GB, VX, and Mustard at the emission limits for the maximum number of permitted hours. This calculation is very conservative since most of the time agent emissions are not detectable (i.e., the detection limit is 20% of the emission limits) and the facility only processes one agent at a time.

DAQ is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Sincerely,

Ty L. Howard, Manager
New Source Review Section